Abstract of the disclosur e:

An apparatus for processing thermoplastic synthetic plastic material to be recycled comprises a first receptacle (1) and a second receptacle (2) for the material to be processed. Within both receptacles (1, 2) tools (21) for mixing and heating the material circulate around a vertical axis each. The material reaches the second receptacle (2) which is connected to an evacuating means (9), from the first receptacle (1) through a connecting conduit (3). The first receptacle (1) has above an intake opening (19) for the material to be processed, and the mouth of the connecting conduit (3) in the second receptacle (2) is disposed at a higher level than the tools (21) circulating in this receptacle (2). The material processed is carried off the second receptacle (2) through a discharge opening (49) by means of at least one screw (47), whereby this receptacle is vacuum-tightly closed. To the intake opening (19) of the first receptacle (1) that also is connected to an evacuating means (9), a sluice (6) is connected. In both receptacles (1, 2) at least two tools (21) each circulate in different levels, disposed one upon the other, wherein the intake opening (19) in the first receptacle (1) is disposed higher than the uppermost tools (21) circulating in this receptacle 1. The discharge opening (49) of the second receptacle (2) is disposed at least substantially at the level of the lowermost tools (21) circulating in this receptacle (2). In each one of the two receptacles (1, 2) at least one temperature sensor (32) is provided for each plane of the circulating tools (21) which sensor is disposed higher than its associated plane.

(Fig. 1)